

CLAIMS

1. A numerical controller having a numerical control section that outputs movement commands and a motor control section that controls motors according to the movement commands from the numerical control section, the numerical controller comprising:

an interface unit for receiving signals from sensors and sending the received signals to the motor control section; and

a data table storing a correspondence between the sensors and the motors;

wherein the motor control section receives the signals from the sensors through the interface unit and controls the motors corresponding to the sensors according to the correspondence between the sensors and the motors set in the data table.

2. The numerical controller of claim 1, wherein the correspondence between the sensors and the motors is one-to-one, one-to-n, or n-to-one (n being an integer greater than or equal to two).

3. The numerical controller of claim 1 or 2, wherein an emergency stop signal is associated with the motors as one of the sensor signals.

4. A numerical controller in which a plurality of servo amplifiers and one interface unit or a plurality of interface units are interconnected through a serial bus in a daisy chain fashion, the numerical controller comprising:

a plurality of servo motors controlled by the plurality of servo amplifiers;

a plurality of sensors, including a sensor that senses the position of a

movable part driven by at least one of the servo motors; and
a memory storing a data table in which one or more of the sensors in
the plurality of sensors are assigned to each of the plurality of servo
motors; wherein:

the interface unit receives a plurality of signals from the sensors and
sends the plurality of signals to the numerical controller; and

the numerical controller receives the signals sent from the plurality of
sensors through the interface unit sequentially, identifies a sensor that has
sent each of the signals according to an order of reception of the signals,
determines a servo motor corresponding to the identified sensor with
reference to the data table, and controls the determined servo motor
according to the signal received from the sensor.

5. The numerical controller of claim 4, wherein the sensors include at
least one of a linear scale that senses the position of a table driven by a
servo motor, a sensor that senses a temperature, a pressure, a voltage, or a
current, and a limit switch.